Chemistry
Ticket Out the Door
Set 27: Chemical Reactions Part 2

Name _____ Period _____

Skill 27.01 Problem 1

Classify each reaction as one of the following types: decomposition, synthesis, single replacement, double replacement, combustion
(a) $Ba(OH)_2(s) + AgNO_3(aq) \rightarrow Ba(NO_3)_2(aq) + AgOH(s)$
(b) $Na(s) + H_2O(l) \rightarrow NaOH(aq) + H_2$
(c) $Ca(OH)_2(s) \rightarrow CaO(s) + H_2O(g)$
(d) $Zn(s) + I2(s) \rightarrow ZnI(s)$

Skill 27.01 Problem 2

(a) Write each reaction (b) Classify each reaction as one of the following types: decomposition, synthesis, single replacement, double replacement, combustion
(a) A piece of sodium (Na) metal is placed in water (H_2O) and produces hydrogen (H_2) gas and sodium hydroxide (NaOH)
(b) When zinc (Zn) metal is added to an aqueous solution of copper chloride ($CuCl_2$), solid copper (Cu) precipitates and aqueous zinc chloride ($ZnCl_2$) is produced.
(c) When solid carbon (C) combusts in a limited supply of oxygen (O_2), carbon monoxide (CO) gas is produced.
(d) When methane gas (CH_4) is burned, carbon dioxide (CO_2) gas and water (H_2O) vapor are produced.

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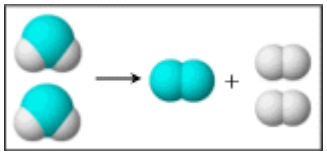
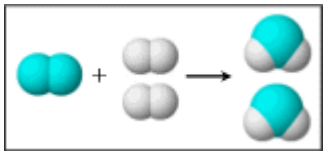
Skill 27.01 Problem 3

Classify each reaction as one of the following types: decomposition, synthesis, single replacement, double replacement, combustion

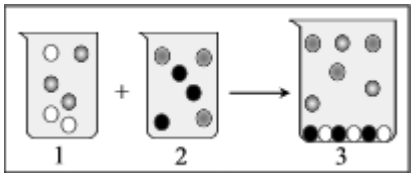
(a)



(b)



(c)



Skill 27.02 Problem 1

Balance the following reactions:

(a) $Na + O_2 \rightarrow Na_2O$

(b) $K + Cl_2 \rightarrow KCl$

(c) $Al + NiSO_4 \rightarrow 3Ni + Al_2(SO_4)_3$

(d) $CH_4 + O_2 \rightarrow CO_2 + H_2O$

(e) $Na + H_2O \rightarrow NaOH + H_2$